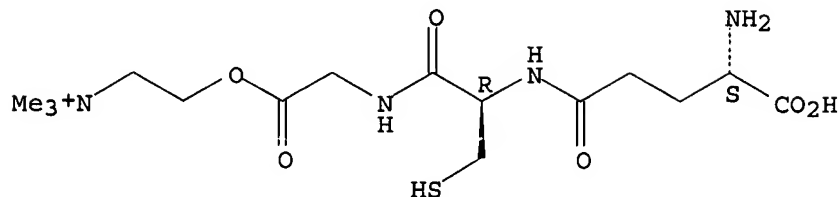


ester (9CI) (CA INDEX NAME)

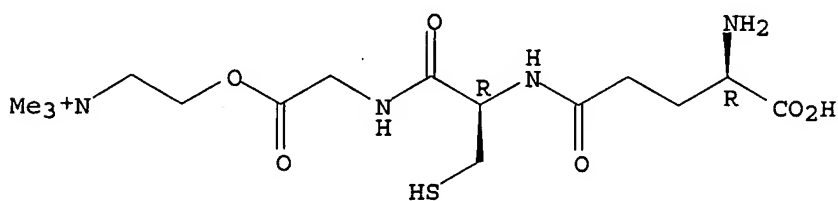
Absolute stereochemistry.



RN 853015-50-6 CAPLUS

CN Glycine, D-gamma-glutamyl-L-cysteinyl-, 3-[2-(trimethylammonio)ethyl]
ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d his

(FILE 'HOME' ENTERED AT 17:46:50 ON 15 SEP 2007)

FILE 'REGISTRY' ENTERED AT 17:47:02 ON 15 SEP 2007

L1 STRUCTURE UPLOADED
L2 0 S L1 SSS SAM
L3 6 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 17:48:42 ON 15 SEP 2007

L4 4 S L3

=> d his

(FILE 'HOME' ENTERED AT 17:46:50 ON 15 SEP 2007)

FILE 'REGISTRY' ENTERED AT 17:47:02 ON 15 SEP 2007

L1 STRUCTURE UPLOADED
L2 0 S L1 SSS SAM
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FILE 'CAPLUS' ENTERED AT 17:48:42 ON 15 SEP 2007

L4 4 S L3

=> d his

(FILE 'HOME' ENTERED AT 17:46:50 ON 15 SEP 2007)

FILE 'REGISTRY' ENTERED AT 17:47:02 ON 15 SEP 2007

L1 STRUCTURE UPLOADED
L2 0 S L1 SSS SAM
L3 6 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 17:48:42 ON 15 SEP 2007

Ceryfu
10/15/07, P03

L4

4 S L3

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:sssptau183lec

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	MAY 01	New CAS web site launched
NEWS	3	MAY 08	CA/CAPplus Indian patent publication number format defined
NEWS	4	MAY 14	RDISCLOSURE on STN Easy enhanced with new search and display fields
NEWS	5	MAY 21	BIOSIS reloaded and enhanced with archival data
NEWS	6	MAY 21	TOXCENTER enhanced with BIOSIS reload
NEWS	7	MAY 21	CA/CAPplus enhanced with additional kind codes for German patents
NEWS	8	MAY 22	CA/CAPplus enhanced with IPC reclassification in Japanese patents
NEWS	9	JUN 27	CA/CAPplus enhanced with pre-1967 CAS Registry Numbers
NEWS	10	JUN 29	STN Viewer now available
NEWS	11	JUN 29	STN Express, Version 8.2, now available
NEWS	12	JUL 02	LEMBASE coverage updated
NEWS	13	JUL 02	LMEDLINE coverage updated
NEWS	14	JUL 02	SCISEARCH enhanced with complete author names
NEWS	15	JUL 02	CHEMCATS accession numbers revised
NEWS	16	JUL 02	CA/CAPplus enhanced with utility model patents from China
NEWS	17	JUL 16	CAPplus enhanced with French and German abstracts
NEWS	18	JUL 18	CA/CAPplus patent coverage enhanced
NEWS	19	JUL 26	USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS	20	JUL 30	USGENE now available on STN
NEWS	21	AUG 06	CAS REGISTRY enhanced with new experimental property tags
NEWS	22	AUG 06	BEILSTEIN updated with new compounds
NEWS	23	AUG 06	FSTA enhanced with new thesaurus edition
NEWS	24	AUG 13	CA/CAPplus enhanced with additional kind codes for granted patents
NEWS	25	AUG 20	CA/CAPplus enhanced with CAS indexing in pre-1907 records
NEWS	26	AUG 27	Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
NEWS	27	AUG 27	USPATOLD now available on STN
NEWS-28	AUG 28		CAS-REGISTRY enhanced with additional experimental spectral property data
NEWS	29	SEP 07	STN AnaVist, Version 2.0, now available with Derwent World Patents Index
NEWS	30	SEP 13	FORIS renamed to SOFIS
NEWS	31	SEP 13	INPADOCDB: New SDI frequency MONTHLY available now
NEWS EXPRESS	05	SEPTEMBER 2007:	CURRENT WINDOWS VERSION IS V8.2, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 05 SEPTEMBER 2007.
NEWS HOURS			STN Operating Hours Plus Help Desk Availability
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NEWS IPC8			For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 17:46:50 ON 15 SEP 2007

=>

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 17:47:02 ON 15 SEP 2007

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STRUCTURE FILE UPDATES: 14 SEP 2007 HIGHEST RN 947298-73-9

DICTIONARY FILE UPDATES: 14 SEP 2007 HIGHEST RN 947298-73-9

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<http://www.cas.org/support/stngen/stndoc/properties.html>

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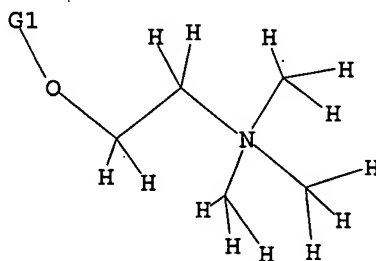
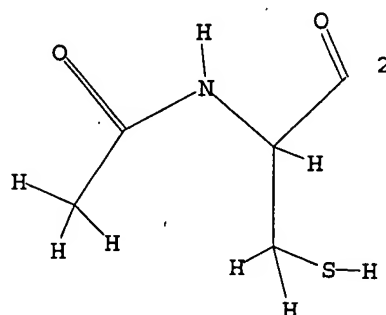
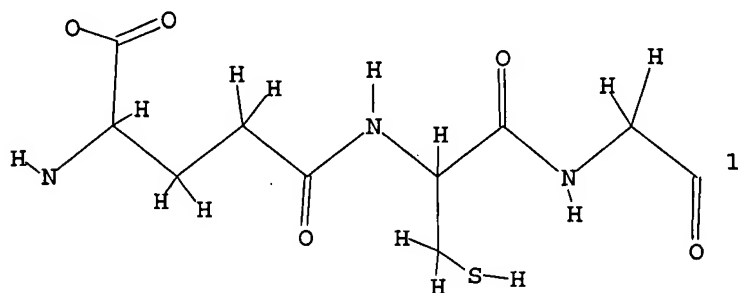
Uploading A:\10.580803.Sheu et al..str

L1 STRUCTURE UPLOADED

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L1 HAS NO ANSWERS

L1 STR



G1 [@1],[@2]

Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SEARCH INITIATED 17:47:41 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 15 TO ITERATE

100.0% PROCESSED 15 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 66 TO 532

PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s-l1-sss-full

FULL SEARCH INITIATED 17:47:50 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 245 TO ITERATE

100.0% PROCESSED 245 ITERATIONS

6 ANSWERS

SEARCH TIME: 00.00.01

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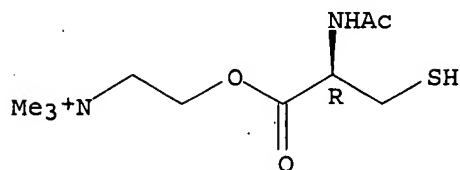
=> d scan

L3 6 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN

IN Ethanaminium, 2-[(2R)-2-(acetlamino)-3-mercapto-1-oxopropoxy]-N,N,N-trimethyl-, chloride (1:1)

MF C10 H21 N2 O3 S . Cl

Absolute stereochemistry.



● Cl⁻

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

173.00

173.21

FILE 'CAPLUS' ENTERED AT 17:48:42 ON 15 SEP 2007

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(FILE 'HOME' ENTERED AT 17:46:50 ON 15 SEP 2007)

FILE 'REGISTRY' ENTERED AT 17:47:02 ON 15 SEP 2007

L1 STRUCTURE UPLOADED

L2 0 S L1 SSS SAM

L3 6 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 17:48:42 ON 15 SEP 2007

=> s l3

L4 4 L3

=> d l4 ed ibib abs hitstr 1-4

L4 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 20 May 2007

ACCESSION NUMBER: 2007:542355 CAPLUS

DOCUMENT NUMBER: 147:157119

TITLE: Targeting antioxidants to mitochondria: a potential new therapeutic strategy for cardiovascular diseases

AUTHOR(S): Victor, V. M.; Rocha, M.

CORPORATE SOURCE: Centro Nacional de Investigaciones Cardiovasculares (CNIC), Madrid, 28029, Spain

SOURCE: Current Pharmaceutical Design (2007), 13(8), 845-863

CODEN: CPDEFP; ISSN: 1381-6128

PUBLISHER: Bentham Science Publishers Ltd.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review. Mitochondria produce large amts. of free radicals and play an important role in the life and death of a cell. Thus, mitochondrial oxidative damage and dysfunction contribute to a number of cell pathologies that manifest themselves through a range of conditions including ischemia-reperfusion injury, sepsis, diabetes, atherosclerosis and, consequently, cardiovascular diseases (CVD). In fact, endothelial dysfunction, characterized by a loss of nitric oxide (NO) bioactivity, occurs early on in the development of atherosclerosis, and detrs. future vascular complications. Although the mol. mechanisms responsible for mitochondria-mediated disease processes are not yet clear, oxidative stress seems to play an important role. This review considers the process of CVD from a mitochondrial perspective. Accordingly, strategies for the targeted delivery of antioxidants to mitochondria are being developed. In this review, we will provide a summary of the following areas: the cellular metabolism of reactive oxygen species (ROS) and its role in pathophysiol. processes such as CVD; currently available antioxidants and possible reasons for their efficacy and inefficacy in ameliorating oxidative stress-mediated diseases; recent developments in mitochondrially-targeted antioxidants that concentrate on the matrix-facing surface of the inner mitochondrial membrane and therefore protect against mitochondrial oxidative damage, and their therapeutic potential for future treatment of CVDs. More pre-clin. and clin. studies, however, are necessary in order to evaluate the effectiveness and toxicity of mitochondrially-targeted antioxidants.

IT 853015-46-0, MitoNAC 943963-94-8, MitoGSH

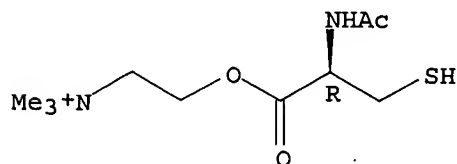
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(targeting antioxidants to mitochondria with a potential new therapeutic strategy for cardiovascular diseases)

RN 853015-46-0 CAPLUS

CN Ethanaminium, 2-[(2R)-2-(acetylamino)-3-mercapto-1-oxopropoxy]-N,N,N-trimethyl-, chloride (1:1) (CA INDEX NAME)

Absolute stereochemistry.

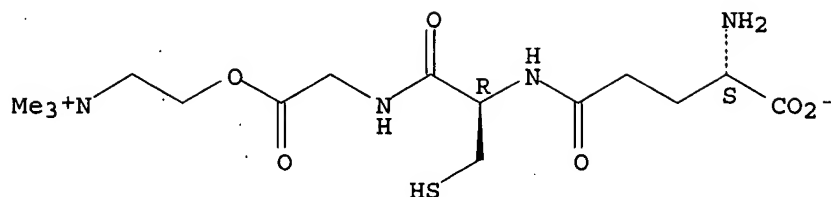


● Cl⁻

RN 943963-94-8 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



REFERENCE COUNT: 156 THERE ARE 156 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 21 Jul 2006

ACCESSION NUMBER: 2006:710737 - CAPLUS

DOCUMENT NUMBER: 145:146030

TITLE: Preparation of compounds for delivering amino acids or peptides with antioxidant activity into mitochondria
INVENTOR(S): Sheu, Shey-Shing; Anders, Marion W.; Xu, Lin; Sharma, Virendra K.; Nauduri, Dhananjaya

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of Appl. No. PCT/US04/039739.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006160748	A1	20060720	US 2005-312873	20051220
WO 2005051978	A2	20050609	WO 2004-US39739	20041126
WO 2005051978	A3	20051124		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

WO 2007076323	A2	20070705	WO 2006-US62231	20061218
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PRIORITY APPLN. INFO.:

US 2003-524833P P 20031125
WO 2004-US39739 A2 20041126

AB The invention discloses compds. containing single amino acids, peptides or their derivs. which are are selectively delivered to the mitochondria of a cell. These compds. exhibit antioxidant activity thereby reducing reactive oxygen species in cells and are useful for inhibiting oxidative stress-induced cell injury or death both in vivo and ex vivo. Thus, N-acetyl-L-cysteine choline ester was prepared and shown to minimize the depolarization of mitochondrial membrane potential induced by oxidative stress.

IT 853015-41-5P 853015-46-0P 853015-49-3P

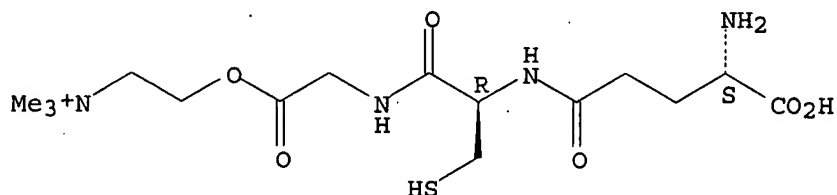
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of compds. for delivering amino acids or peptides with antioxidant activity into mitochondria)

RN 853015-41-5 CAPLUS

CN Glycine, L-γ-glutamyl-L-cysteinyl-, 3-[2-(trimethylammonio)ethyl] ester, chloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

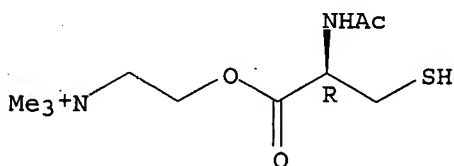


● Cl⁻

RN 853015-46-0 CAPLUS

CN Ethanaminium, 2-[(2R)-2-(acetylamino)-3-mercapto-1-oxopropoxy]-N,N,N-trimethyl-, chloride (1:1) (CA INDEX NAME)

Absolute stereochemistry.

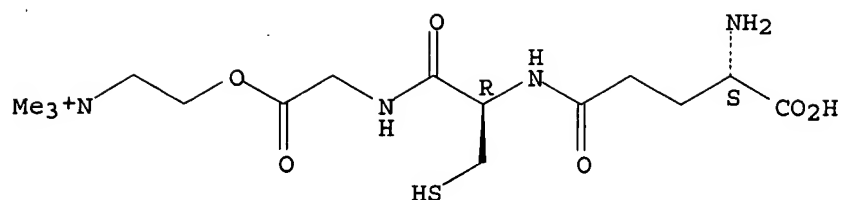


● Cl⁻

RN 853015-49-3 CAPLUS

CN Glycine, L-γ-glutamyl-L-cysteinyl-, 3-[2-(trimethylammonio)ethyl] ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 09 Jun 2006

ACCESSION NUMBER: 2006:544676 CAPLUS

DOCUMENT NUMBER: 145:21218

TITLE: Compositions and methods for attenuating mitochondria-mediated cell injury comprising S-nitrosated thiol antioxidants

INVENTOR(S): Brookes, Paul S.; Sheu, Shey-Shing; Anders, Marion W.

PATENT ASSIGNEE(S): University of Rochester, USA

SOURCE: U.S. Pat. Appl. Publ., 12 pp., Cont.-in-part of PCT/US04/39739.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006122267	A1	20060608	US 2005-316618	20051220
WO 2005051978	A2	20050609	WO 2004-US39739	20041126
WO 2005051978	A3	20051124		
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WO 2007076322	A2	20070705	WO 2006-US62229	20061218
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PRIORITY APPLN. INFO.:

US 2003-524833P P 20031125

WO 2004-US39739 A2 20041126

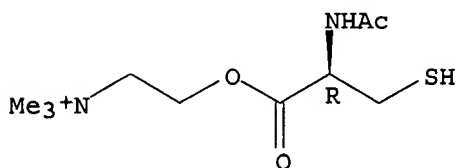
US 2005-316618 A 20051220

AB The present invention relates to an S-nitrosated mitochondria-targeted thiol-based antioxidant prodrug and uses therefore for the prevention or treatment of diseases or conditions associated with mitochondrial dysfunction resulting from changes in the mitochondrial redox environment. When activated, prodrug of the present invention can specifically provide a

NO• donor and a thiol-based antioxidant to mitochondria thereby decreasing the degree of mitochondrial dysfunction. Thus, a mitochondria-targeted NO• donor, S-nitroso-2-mercaptopropylglycine (SNO-MPG), obtained by S-nitrosation of 2-mercaptopropylglycine, protected cardiomyocytes from ischemia-reperfusion injury in a dose-dependent manner, with the higher dose being more effective than ischemic preconditioning (IPC).

IT 853177-82-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (S-nitrosated mitochondria-targeted thiol antioxidant prodrugs for attenuating mitochondria-mediated cell injury as nitric oxide donors)
 RN 853177-82-9 CAPLUS
 CN Ethanaminium, 2-[(2R)-2-(acetylamino)-3-mercapto-1-oxopropoxy]-N,N,N-trimethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
 ED Entered STN: 09 Jun 2005
 ACCESSION NUMBER: 2005:490376 CAPLUS
 DOCUMENT NUMBER: 143:26888
 TITLE: Preparation of compounds for delivering amino acids or peptides with antioxidant activity into mitochondria
 INVENTOR(S): Sheu, Shey-Shing; Anders, Marion W.; Xu, Lin; Sharma, Virendra K.
 PATENT ASSIGNEE(S): University of Rochester, USA
 SOURCE: PCT Int. Appl., 51 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005051978	A2	20050609	WO 2004-US39739	20041126
WO 2005051978	A3	20051124		
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AU 2004293477	A1	20050609	AU 2004-293477	20041126
CA 2547086	A1	20050609	CA 2004-2547086	20041126
EP 1691818	A2	20060823	EP 2004-812293	20041126
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US 2006160748	A1	20060720	US 2005-312873	20051220

US 2007099845 A1 20070503 US 2006-580803 20061124
 PRIORITY APPLN. INFO.: US 2003-524833P P 20031125
 WO 2004-US39739 W 20041126

OTHER SOURCE(S): CASREACT 143:26888; MARPAT 143:26888

AB The invention discloses compds. containing single amino acids, peptides or their derivs. which have the potential to express antioxidant activity capable of reducing reactive oxygen species in cells. Compds.
 R-O-Z-N+Q1Q2Q3 [R is an amino acid or a peptide comprising two or more amino acids (or their derivs.) which have antioxidant activity; Z is a linker mol. containing 1-20 atoms in a direct chain; Q1, Q2 and Q3 are independently aliphatic C1-C5 hydrocarbons; or Q2 is optional or Q2 and Q3 together form an aliphatic N-heterocycle] and related cyclic compds. containing N+Q1Q2 and having R-O-Z- as substituent. These compds. may be used to inhibit oxidative stress-induced cell injury or death both in vivo and ex vivo. Thus, N-acetyl-L-cysteine choline ester was prepared and shown to prevent the depolarization of membrane potential in isolated heart mitochondria induced by rotenone- and tert-Bu hydroperoxide-induced oxidative stress.

IT 853015-41-5P 853015-46-0P 853015-49-3P
 853015-50-6P

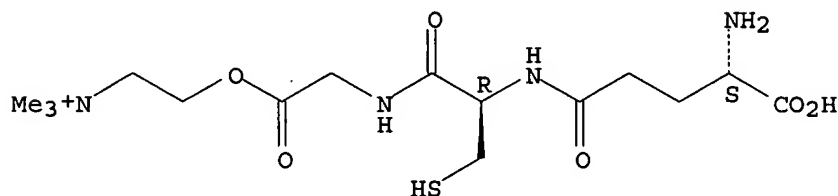
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of compds. for delivering amino acids or peptides with antioxidant activity into mitochondria)

RN 853015-41-5 CAPLUS

CN Glycine, L-γ-glutamyl-L-cysteinyl-, 3-[2-(trimethylammonio)ethyl] ester, chloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.

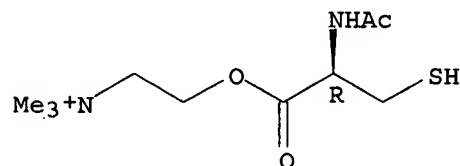


● Cl⁻

RN 853015-46-0 CAPLUS

CN Ethanaminium, 2-[(2R)-2-(acetamino)-3-mercapto-1-oxopropoxy]-N,N,N-trimethyl-, chloride (1:1) (CA INDEX NAME)

Absolute stereochemistry.



● Cl⁻

RN 853015-49-3 CAPLUS

CN Glycine, L-γ-glutamyl-L-cysteinyl-, 3-[2-(trimethylammonio)ethyl]